

Applicant : David R. Maas et al.
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Attorney's Docket No.: 13506-015001

REMARKS

Claims 1, 7, 11, and 14 have been amended. Written description support for these amendments is found throughout the original specification, for example, at page 4, lines 13-30; at page 7, line 15 to page 9, line 9; at page 11, line 24 to page 13, line 21; and at FIGS. 7A-B, 8A-C, and 14-15. No new matter has been added by these amendments. Claims 8-10 and 18-24 have been withdrawn from consideration. Accordingly, Claims 1-7 and 11-17 are pending and subject to examination. Applicants respectfully submit that amended independent claims 1 and 11 describe patentable subject matter and are in condition for allowance.

Claims 1-7

Independent claim 1 and dependent claims 3-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,143,090 to Cecil et al. (hereinafter "Cecil"). Dependent claim 2 was rejected under 35 U.S.C. § 103 as being obvious over Cecil. Applicants respectfully submit that amended independent claim 1 describes subject matter not disclosed or suggested by the teaching of Cecil.

Amended independent claim 1 describes an apparatus for aerating soil that includes a first set of soil aeration tines attached to a first shaft, "each tine in the first set rotating relative to a ground surface in one of a first set of rotation planes." The apparatus also includes a second set of soil aeration tines attached to a second shaft, "each tine in the second set rotating relative to the ground surface in one of a second set of rotation planes." None of the second set of rotating planes overlap any of the first set of rotating planes.

Unlike claim 1, Cecil does not suggest or disclose an aeration tine "rotating relative to a ground surface" and thus does not suggest or disclose any "rotation planes" as described in claim 1. Indeed, Cecil teaches quite the opposite. Cecil teaches that the liquid-injection spikes 55 must be maintained in a fixed orientation (vertically oriented to be perpendicular to the ground) relative to the ground surface throughout the entire cycle. (See col. 3, lines 13-15; col. 4, lines 28-34.) Specifically, Cecil discloses that "the gears must be so proportioned with respect to each other as to maintain the spikes 55 in vertical depending relation with respect to the hollow

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shafts 47[] during each entire cycle of rotation of the treatment drum 21." (See col. 3, lines 28-34.) In short, Cecil does not disclose that the spikes rotate relative to the ground surface in a rotation plane, and in fact, Cecil suggests an apparatus that does the opposite (non-rotation of the spikes 55 relative to the ground surface).

Applicants respectfully submit that neither Cecil nor any other prior art of record discloses or suggests every element described in amended claim 1. Accordingly, independent claim 1 and dependent claims 2-7 are patentable over the prior art of record and are in condition for allowance.

Claims 11-17

Independent claim 11 and dependent claims 12-17 were rejected under 35 U.S.C. § 103 as being obvious over Cecil. Applicants respectfully submit that amended claim 11 describes subject matter not disclosed or suggested by the teaching of Cecil.

Unlike claim 11, Cecil does not suggest or disclose a first soil fracturing means that is staggered relative to a second soil fracturing means such that "the first soil fracturing means revolves about the first holding means relative to a ground surface" without interference from second soil fracturing means. Again, Cecil teaches quite the opposite in that Cecil's liquid-injection spikes 55 are consistently maintained in a fixed orientation (vertically oriented to be perpendicular to the ground) relative to the ground surface throughout the entire cycle. (See col. 3, lines 13-15; col. 4, lines 28-34.) Because Cecil does not disclose that a spike 55 revolves about its holding tube 47 relative to a ground surface, Cecil certainly does not suggest a first soil fracturing means that "revolves about the first holding means relative to a ground surface without interference from second soil fracturing means," as described in claim 11.

Applicants respectfully submit that neither Cecil nor any other prior art of record discloses or suggests every element described in amended claim 11. Accordingly, independent claim 11 and dependent claims 12-17 are patentable over the prior art of record and are in condition for allowance.

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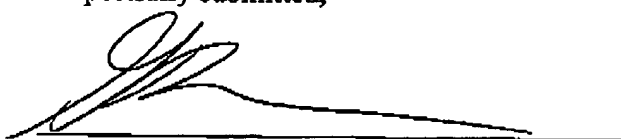
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Applicants respectfully request examination of the pending claims. No fee is believed due at this time. If necessary, please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: _____

11/9/05



Greg H. Gardella
Reg. No. 46,045

Fish & Richardson P.C., P.A.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (612) 288-9696

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